



Summer of Innovation

the situation

A national focus on the crisis in Science, Technology, Engineering, and Mathematics (STEM) education. *"The nation that out-educates us today will out-compete us tomorrow." – President Barack Obama*



the challenge

A national call to invite all STEM stakeholders to make STEM real and understandable in every community and state this summer by providing the opportunity for every 5th through 8th grade student to engage with a STEM professional, experience hands-on activities, explore career

opportunities and navigate through related content. Companies, education institutions and other STEM-related organizations will open their doors to students in summer learning activities.

our response

Through the **Summer of Innovation**, NASA will work with partners and educators across America, using the excitement of space to engage the nation's middle school students in intensive experiences that will improve their academic performance and ultimately strengthen our future workforce.

the details

- The Summer of Innovation pilot will leverage the **excitement of NASA's mission** and provide intensive complementary STEM learning support.
- We recognize that **summer is an opportune time** to engage youth in STEM experiences. We will work to **counter the "summer slide"** (loss of academic skills over the summer) and other issues facing students who are underrepresented, underserved and underperforming in STEM.
- NASA is the **first Federal Agency** to invest resources in intensive STEM education for the summer that will go **beyond inspiration** to result in **demonstrable improvements** in teaching and learning.
- The summer student and teacher experiences will form the basis for an **ongoing STEM learning community** that supports long-term improvements in STEM teaching and learning.
- NASA will **collaborate** with a variety of partners to successfully deliver the Summer of Innovation to the nation.



your role

We need your help in finding innovative ways to reach our audiences. Benefits to you include access to NASA content and resources. Let's work together to change STEM education for the next generation!





Summer of Innovation

Summer of Innovation is a multi-faceted, intensive middle school science, technology, engineering, and mathematics (STEM) project with a pilot conducted during the summer 2010. Summer of Innovation is designed to improve STEM teaching and learning in partnership with federal agencies, academic and informal organizations, nonprofit and industry.

Vision

- Inspire the nation with an innovative education program.
- Engage Americans in NASA's mission, and strengthen NASA and the Nation's the future workforce.
- Serve as a catalyst to expand, align, and strengthen existing state-based STEM learning networks.
- Maximize learning and development outcomes to keep students on pathways to learning and life success.
- Partner with organizations to ensure that summer learning experiences are available to all students.
- Increase the chances that all children can meet high academic standards, achieve in school, and succeed in the competitive 21st century global society.

Pilot Project Elements

- Multi-faceted Approach
 1. Space Grant Awardees multi-week summer programs
 2. NASA Center regional collaborations.
 3. Strategic Partnerships for STEM engagement
 4. Contract with entities incorporating NASA content into existing Non-NASA summer learning programs
 5. National Call for participation
- Large-scale STEM event that includes corporate partners, universities, others for national celebration
- Evaluation component of measures/metrics which assess the reach and performance of the project
- Interactive online and in-person engagement and awareness activities to involve and inform project participants, stakeholders, and the general public



Pilot Project Goals are to provide:

- An intensive and interactive middle school education experience that accelerates underrepresented, underserved, and under-performing student learning and improves student STEM skills and knowledge.
- Professional development and training opportunities for educators leading students in summer learning.
- Strategic infusion of NASA content and educational resource materials into evidence-based programs.
- A community of STEM education stakeholders able to sustain engagement and accelerate achievement of students.
- Assessments of effectiveness of project interventions and the effectiveness STEM learning communities developed through this pilot. This will include assessing student improvement in STEM knowledge and skills, changes in teachers' instructional practice (and resulting impacts on student achievement), and attitudes about STEM college study and careers.
- Instructional content aligned with district and/or state standards so that the impacts can be assessed.
- Ongoing STEM engagement and follow-on activities.

Visit www.nasa.gov/soi for more information.

